

REMARKS/ARGUMENTS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 1-6 are pending in the present amendment. Claims 1-4 are amended and Claims 5-6 are added by the present response. Support for amendments to the claims can be found in the disclosure as originally filed, at least, in pages 9-10 and 13-14. Thus, no new matter is added.

In the outstanding Office Action Claims 1-4 were rejected under 35 U.S.C. §103(a) as unpatentable over Yoshiharu et al. (JP 2003-288733, herein Yoshiharu) in view of Masaru (JP 2001-209966), Mitsuhiko et al. (JP 10-222865, herein Mitsuhiko), and Koichi (JP 05-242514).

Initially Applicants and Applicants' representatives wish to thank Examiner Hindi for the interview with Applicants' representatives on November 11, 2008. During the interview the present invention and differences between the invention and the references in the outstanding Office Action were discussed in detail. Arguments discussed and amendments suggested during the interview are reiterated below.

With regard to the rejections of Claim 1 under 35 U.S.C. §103(a) as unpatentable over Yoshiharu in view of Masaru, Mitsuhiko, and Koichi, Applicants respectfully traverse the rejection. Specifically, amended Claim 1 recites,

An optical pickup characterized by including:
a moving base which moves itself in the direction of radius
of a disc-formed recording medium set on a disc table;
an objective lens driver disposed on the moving base;
a plurality of light-emitting elements differed in type, each
of which emits, towards a plurality of disc-formed recording media
differed in type, laser beam of a wavelength of approximately 405
nm, approximately 660 nm and approximately 780 nm
corresponded to each of the disc-formed media;
an objective lens which condenses each laser beam onto a
recording surface of said disc-formed recording medium; and

a light-receiving element which receives the laser beam emitted from said light-emitting elements, and characterized in that:

said objective lens condenses the laser beam onto the recording surface of the disc-formed recording medium to thereby form an elliptic beam spot;

a long axis of a beam spot of said laser beam having a wavelength of approximately 660 nm is aligned in a direction more than 45° to less than 65° away from a tangential direction of the disc-formed recording medium; and

a long axis of a beam spot of said laser beam having a wavelength of approximately 405 nm is aligned in a direction more than 25° to less than 45° away from the tangential direction of the disc-formed recording medium.

Claim 3 recites a corresponding disc drive apparatus claim. Claim 5 recites a corresponding method claim.

Yoshiharu recites an aperture-limiting element and optical head device related to the opening limiting element carried in the optical head device used to record and reproduce information on two or three different types of optical recording mediums. In paragraph 0055 Yoshiharu describes an objective lens which is capable of transmitting light at the 780 nm, 650 nm, and 405 nm wavelengths. Figure 7 in Yoshiharu shows the three sources of these laser beams. However, Yoshiharu does not describe or render obvious that the long axis of a beam spot of a laser beam having a wavelength of approximately 660 nm is aligned in a direction more than 45° to less than 65° away from a tangential direction of the disc-formed recording medium and the long axis of a beam spot of a laser beam having a wavelength of approximately 405 nm is aligned in a direction more than 25° to less than 45° away from the tangential direction of the disc-formed recording medium.

Masaru recites an optical pickup device which makes it possible to reproduce data from CD, CD-R, DVD, and HD-DVD. It further recites the mechanical components necessary to create an optical system to interface with a recording record for recording/reproducing information to/from such record. However, Masaru does not describe

or render obvious that the long axis of a beam spot of a laser beam having a wavelength of approximately 660 nm is aligned in a direction more than 45° to less than 65° away from a tangential direction of the disc-formed recording medium and the long axis of a beam spot of a laser beam having a wavelength of approximately 405 nm is aligned in a direction more than 25° to less than 45° away from the tangential direction of the disc-formed recording medium.

Mitsuhiko recites an optical disc pickup and optical disk unit that pickups light emitted from a semiconductor laser. Mitsuhiko describes the use of a laser to minimize the interference between a spot and a ring zone by the pits, which are adjacent to each other in tangential and radial directions, and to obtain optimally reproduced signals by tilting the major axis of the ellipse of the spot against the pit columns on a high density optical disk for an appropriate angle within a specific angular range. However, Mitsuhiko does not describe or render obvious that the long axis of a beam spot of a laser beam having a wavelength of approximately 660 nm is aligned in a direction more than 45° to less than 65° away from a tangential direction of the disc-formed recording medium and the long axis of a beam spot of a laser beam having a wavelength of approximately 405 nm is aligned in a direction more than 25° to less than 45° away from the tangential direction of the disc-formed recording medium.

Koichi recites an invention that carries out spot irradiation of a laser beam to optical recording media such as an optical disc, a magneto-optical disc, and an optical card and relates to the optical recording method which performs read-out of information. This permits omitting a shaping prism to reduce the size, weight and price of an optical head by irradiating a recording track with an elliptic optical spot so that the minor axis of an ellipse is inclined from the scanning direction of the tracks. However, Koichi does not describe or render obvious that the long axis of a beam spot of a laser beam having a wavelength of

approximately 660 nm is aligned in a direction more than 45° to less than 65° away from a tangential direction of the disc-formed recording medium and the long axis of a beam spot of a laser beam having a wavelength of approximately 405 nm is aligned in a direction more than 25° to less than 45° away from the tangential direction of the disc-formed recording medium.

In addition, in contrast to the combination of Yoshiharu, Masaru, Mitsuhiko, and Koichi amended Claim 1 recites that the long axis of a beam spot of a laser beam having a wavelength of approximately 660 nm is aligned in a direction more than 45° to less than 65° away from a tangential direction of the disc-formed recording medium and the long axis of a beam spot of a laser beam having a wavelength of approximately 405 nm is aligned in a direction more than 25° to less than 45° away from the tangential direction of the disc-formed recording medium. This ensures that the 660 nm laser and 405 nm laser operate in angular ranges that are mutually exclusive to each other.

Thus, Applicants respectfully submit that independent Claim 1 and the claims depending therefrom, patentably distinguish over Yoshiharu in view of Masaru, Mitsuhiko, and Koichi.

Accordingly, Applicants respectfully request that the rejection of Claim 1 under 35 U.S.C. §103(a) be withdrawn.

Consequently, in light of the above discussion and in view of the present amendments, the present application is believed to be in condition for allowance. An early and favorable action to that effect is respectfully requested.

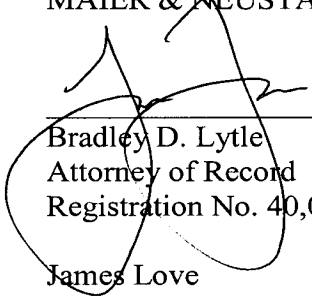
Respectfully submitted,

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